

sub F1
22. (Amended) A fragment of the amino acid sequence shown in SEQ ID [No.] NO:5 or 6, which fragment is receptive to imidazoline compounds.

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23. (Amended) A polypeptide [according to any one] of claim[s] 16 [to 22], which is immunoreactive with at least one of Reis antiserum and Dontenwill antiserum.

24. (Amended) A polypeptide [according to any one] of claim[s] 16 [to 23], which is a human polypeptide.

27. (Amended) A method of screening for a ligand of an imidazoline receptor, which method comprises:

culturing a host cell [as defined in claim 15] transfected with a vector containing an isolated DNA molecule in a culture medium capable of [to] expressing a polypeptide including an amino acid sequence which is receptive to imidazoline compounds;

contacting said polypeptide with a labelled ligand for the imidazoline receptor under conditions effective to bind the labelled ligand thereto;

contacting said polypeptide with a candidate ligand; and detecting any displacement of the labelled ligand from said polypeptide, wherein displacement signifies that the candidate ligand is a ligand for the imidazoline receptor.

32. (Amended) A method of obtaining a DNA material encoding a polypeptide which is receptive to imidazoline compounds, said method comprising:

providing a labelled DNA probe by labelling a DNA molecule identical or complementary to a DNA molecule comprising a DNA sequence with at least 90% sequence identity with the DNA sequence shown in SEQ ID NO:1, 2, 3, 4 or 5, wherein the percent identity is determined using the BLASTN program with default parameters [as defined in any one of claims 1 to 9] or a [restriction] fragment thereof;

contacting said DNA probe with genetic material suspected of encoding said imidazoline receptive polypeptide;

hybridizing said DNA probe and said genetic material under

stringent hybridization conditions;

identifying any portion of the genetic material which hybridizes to said DNA probe; and
isolating said identified material.

35. (Amended) A method according to claim 32, wherein the labelled DNA probe is provided by labelling a 1110 bp ApaI-EcoRI restriction fragment from a DNA molecule comprising a DNA sequence with at least 90% sequence identity with the DNA sequence shown in SEQ ID NO:1, 2, 3, 4 or 5, wherein the percent identity is determined using the BLASTN program with default parameters [according to claim 12 or 13].

36. (Amended) A method of raising antibodies immunoreactive with a polypeptide which is receptive to an imidazoline compound, which method comprises:

injecting an animal with a polypeptide as defined in [any one of] claim[s] 16 [to 24 and 26]; and

isolating antibodies produced by the animal.

Kindly add new Claims 37-40 as follows:

4--~~37~~. A polypeptide of claim ~~19~~, which is immunoreactive with at least one of Reis antiserum and Dontenwill antiserum.

~~5~~ 38. A polypeptide of claim ~~19~~, which is a human polypeptide.

39. A method according to claim 32, wherein the labelled DNA probe is provided by labelling a 1.85 kb ApaI-EcoRI restriction fragment from a DNA molecule comprising a DNA sequence with at least 90% sequence identity with the DNA sequence shown in SEQ ID NO:1, 2, 3, 4 or 5 and operably linked with a promoter sequence, wherein the percent identity is determined using the BLASTN program with default parameters.

40. A method of raising antibodies immunoreactive with a polypeptide which is receptive to an imidazoline compound, which

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